

POWDER METAL HYDRIDE HYDROGEN GENERATOR  
ABSTRACT OF THE DISCLOSURE

A system for generating hydrogen gas for use in a fuel cell includes a powder metal hydride source, a water source, a mixing device and a catalytic hydrogen generating chamber. A method of generating hydrogen for use in a fuel cell includes the steps of: providing a source of dry metal hydride fuel; providing a source of steam; providing a mixing/reaction chamber connected to the source of dry metal hydride fuel and to the source of steam; operating the mixing/reaction chamber to transport the dry metal hydride fuel from its source to a byproduct receptacle and feeding steam into the mixing/reaction chamber such that the steam reacts with the dry metal hydride fuel to produce hydrogen gas and a dry metal powder byproduct; removing the dry metal powder byproduct from the mixing/reaction chamber; and extracting the hydrogen gas from the mixing/reaction chamber.